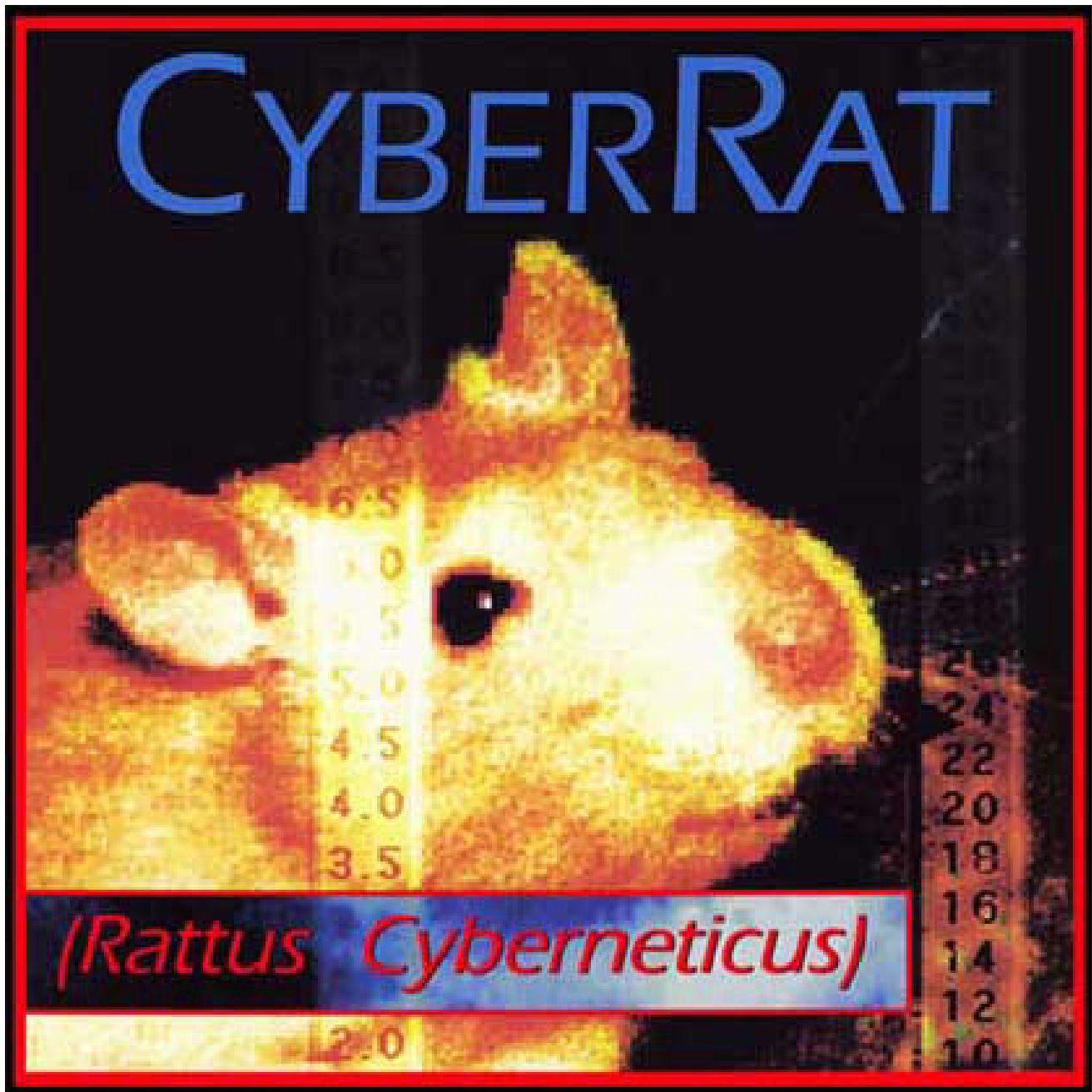


# CyberRat: Quick-Start Guide

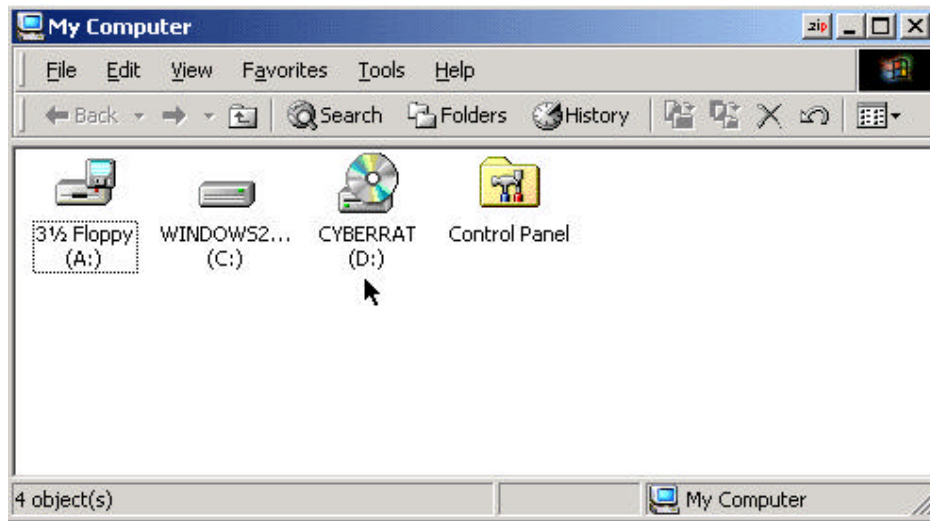


Roger D. Ray, Ph.D.  
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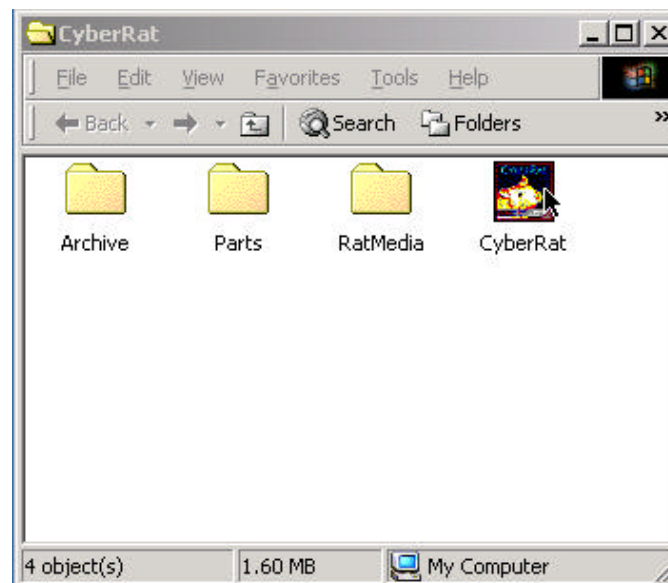
## CyberRat Quick-Start Guide

(Only selected major features are covered here to get you started quickly, refer to the more extensive CyberRat User's Manual for details and elaborations...)

Step 1. Insert CD and open it on your desktop:



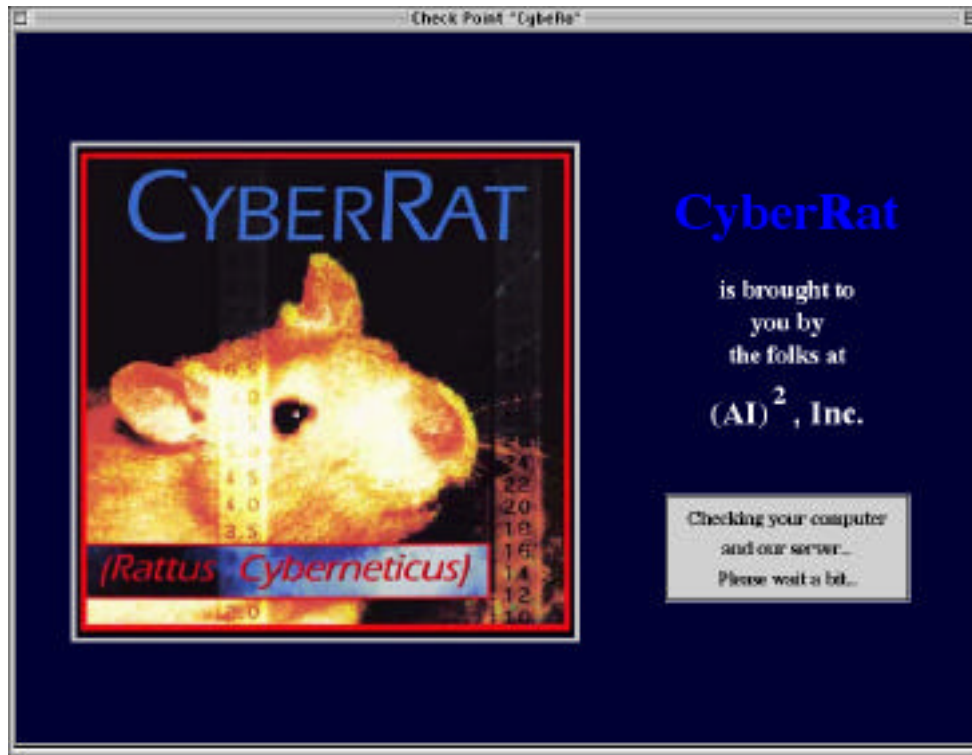
Step 2. Move the folder to your Hard Drive for best playback results, then open it and launch CyberRat



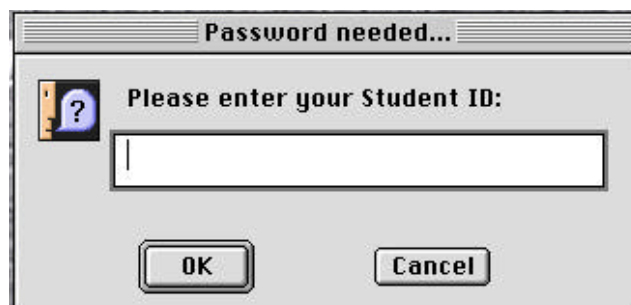
Step 3. Wait through the Splash Screen while it finds the main application and a place to write temporary files on your HD (will create a folder called CyberRat

on your C drive). If you want to run it always from your HD, move all elements of CD to this CyberRat folder it creates on your HD or create a CyberRat folder of your own on your HD prior to launching the first time and it will find it for the temp file storage when you launch the HD version of CyberRat application).

The Splash Screen:

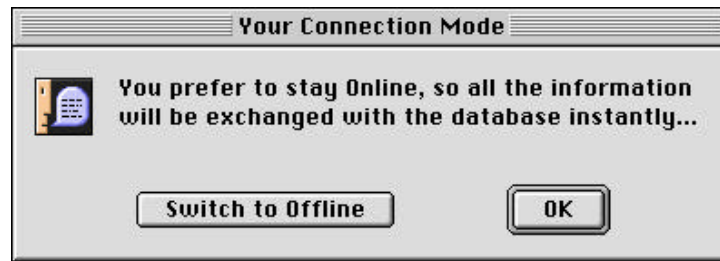


When the main application starts it will ask you for a Password (typically a student ID number). **You must have previously registered at [www.cybererat.biz](http://www.cybererat.biz)** to be recognized as a bona fide registered user...otherwise it will limit you to Visitor-only services (one magazine trained subject with no saving of session data):



If you typed in the correct ID/Password, it will give you a recognition screen with brief instructions/options to work on/off line during your session. **NOTE:**

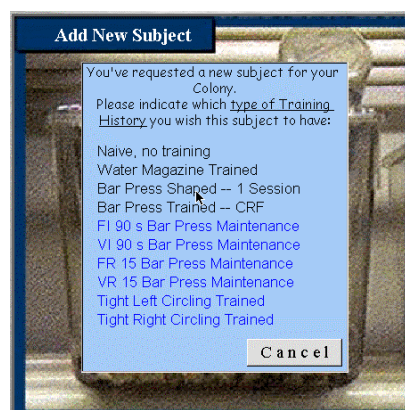
**You must reconnect to the internet at the end of your session to save any new session data.**



Once you have confirmed your preferences, you will receive instructions to go to the colony room to select an animal for experimentation:



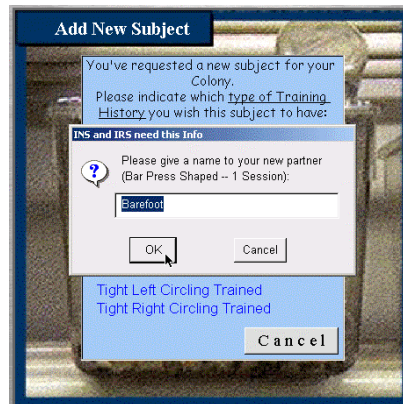
Clicking the OK button takes you immediately to the "Colony Room" where, since you have not used it before, you will have to Add a New Subject (if you have used it, a list of your existing subjects will appear in the "cage ID tag"). As soon as you click on the Add New Subject button, you will be asked to select some subject history parameters that define where you want to start vis a vis your animal's history:



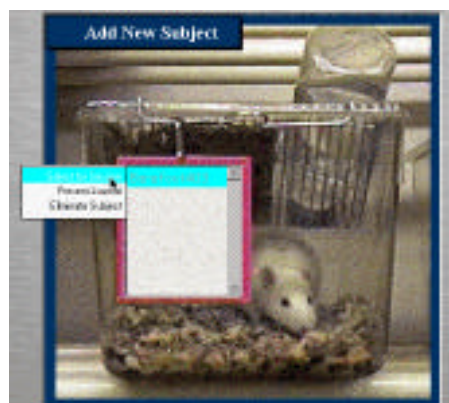
If you select a subject with some history of Magazine Training or at least one session of Bar Press training, you will be able to more quickly play with graphing and other features, but you should definitely select at least one animal eventually

that is Naïve and experience the full set of training exercises, including Magazine Training (reinforce the animal for coming to the dipper and/or staying at the dipper), bar press shaping (start with bar sniff, move to bar sniff over top of the bar, bar touch, then bar press), and a few sessions of CRF maintenance to establish a stable run. Also, play with 60 minute session durations to experience satiation during the period.

Assume you picked a Bar Press Shaped – 1 Session animal as illustrated above. Then you will be asked to name your subject (either accept default suggestion or type your own choice):

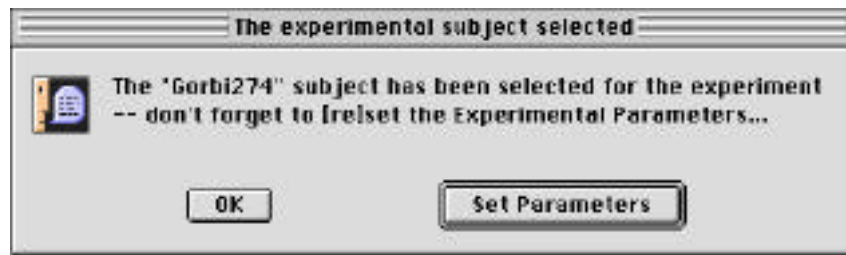


After naming your subject, you may add even more new subjects at this time if you'd like. In any case, after all your new subjects' names appear in the cage tag, you need to select one for experimentation. Do this by moving your cursor over the name you want to pick, move to the popup, and choose "Select for Session" as illustrated:



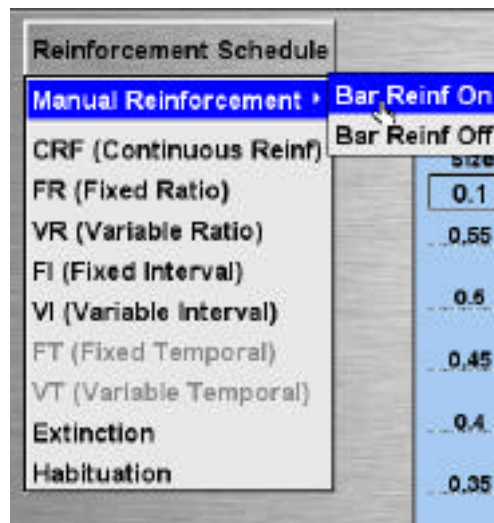
As the other options here suggest, if your animal has an experimental history you may view it via the Present Journal selection, and you may "sacrifice" your animal and remove its entire history from your records by selecting "Eliminate Subject."

When you select your subject for your session, you are prompted to use the navigation button at the upper right to go to the “Set Experimental Parameters” screen in order to establish your experimental setup, as illustrated:



Click on the Set Parameters button (or hit return/enter) to go directly there.

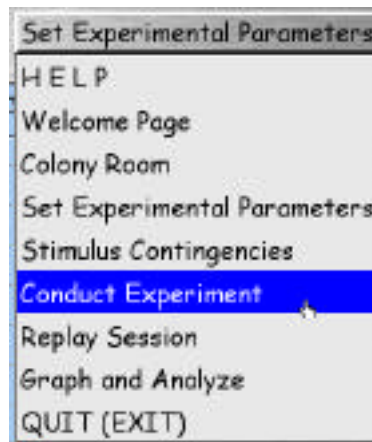
The first thing you will want to set is the schedule of reinforcement you wish to use. If you want the ability to manually reinforce along with automatic delivery when the bar is pressed, select the Manual – Bar On option, as illustrated:



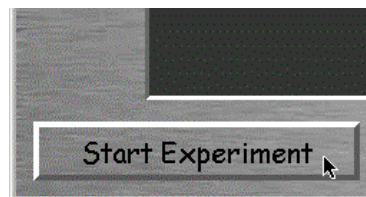
Dimmed options are under development. Available options are in black.

On this page you may also change the amount of reinforcement per delivery, the hours of water deprivation, and whether you want your session to self-terminate after the number of minutes you specify and/or want to be able to manually terminate the session. There is also a “Fast simulation” mode that turns off the video play to simulate putting animals in the chamber and only revisiting to get them when the session self-terminates. Use video mode to see your animal (required if it isn’t shaped yet). When you are satisfied with your experimental parameter settings, use the Navigation button to go to the Conduct Experiment screen as illustrated:

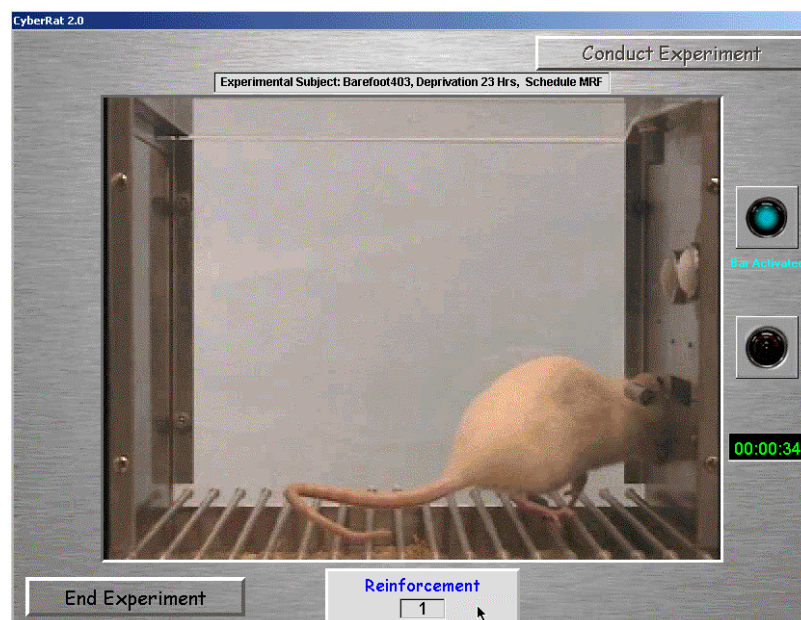




This takes you to the “experimental room” to conduct your experiment. To do so, click on the “Start Experiment” button, as illustrated:



If you are in the “Fast Simulation” mode, you will see a message and a dancing animated rat to inform you that the experiment is taking place in the “black box” arrangement. If you are in Video mode, you should see your animal being placed into the operant chamber and the experiment has thus automatically started, as reflected in the clock that illustrates the elapsed “run-time” starting from this point:

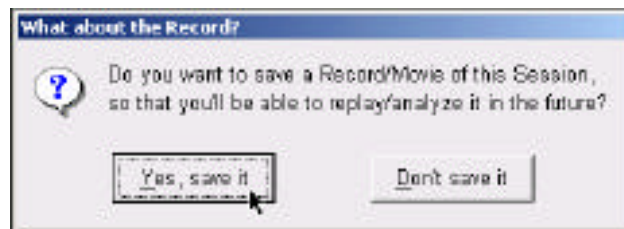


The manual reinforcement button should also appear if you have selected the Manual Reinforcement (MRF) mode. Otherwise, it should be dimmed. Clicking on this button will deliver “water” reinforcement to the dipper area, as indicated by the “water drop” sound.

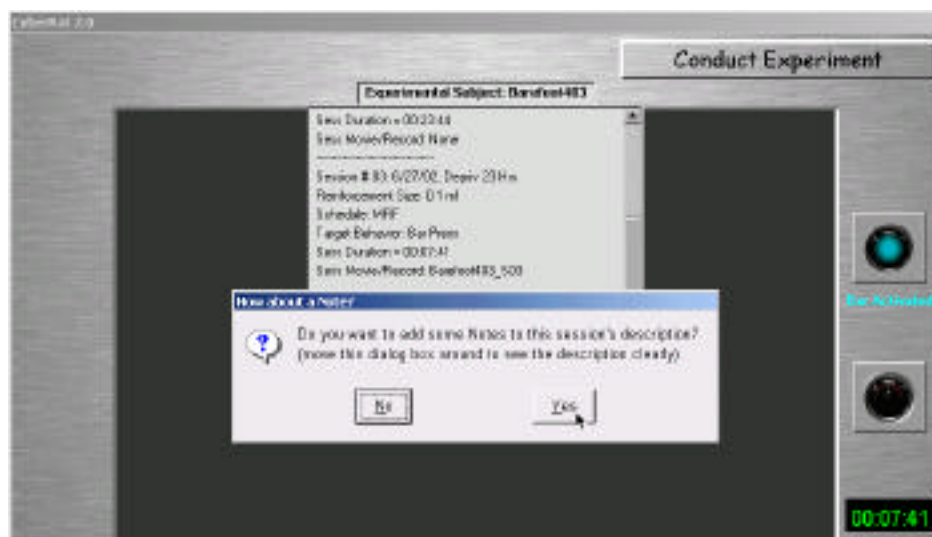
If you have set a fixed duration for your session, it will self-terminate. If you have allowed for manual termination, when you are ready to end your experimental session you should click on the “End Experiment” button:



Doing so will bring up a succession of dialog windows asking you whether you wish to save a history record for video and graphing of this session and whether you wish to add any notes that will appear in your experimental journal for this animal and this session. First you will see the record history dialog:

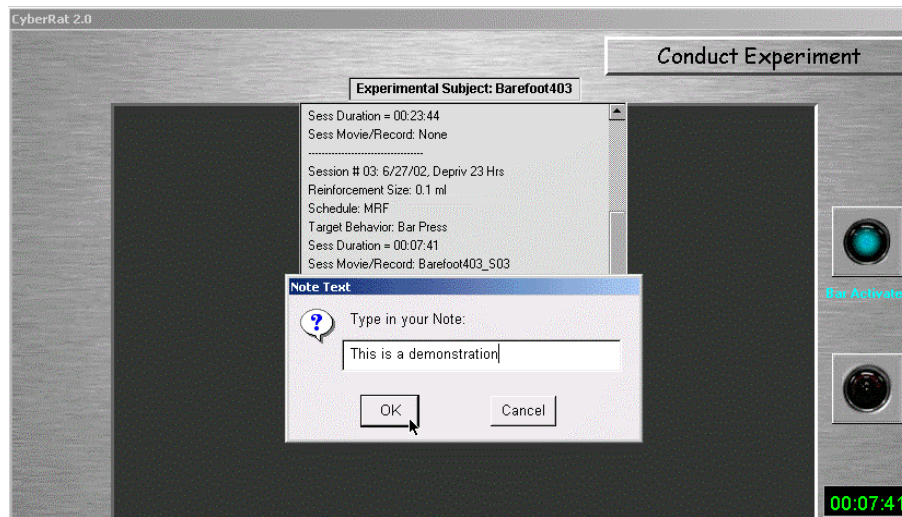


And then you will get the notes dialog:



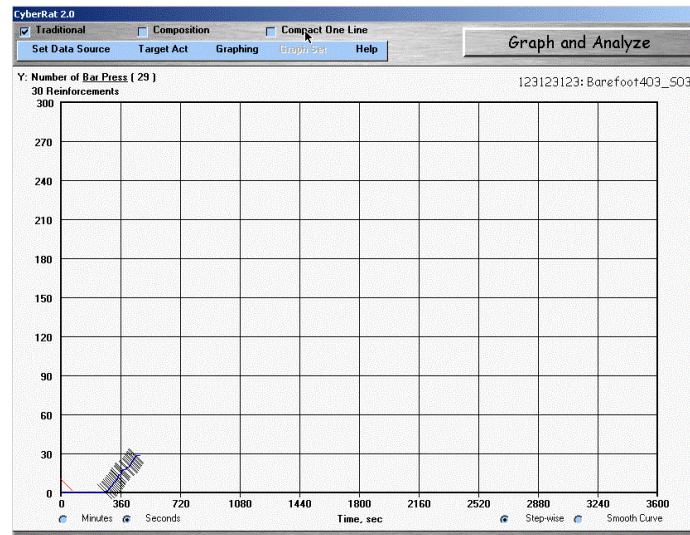


It is typically a good idea to make some note of anything special about a session or its purpose:

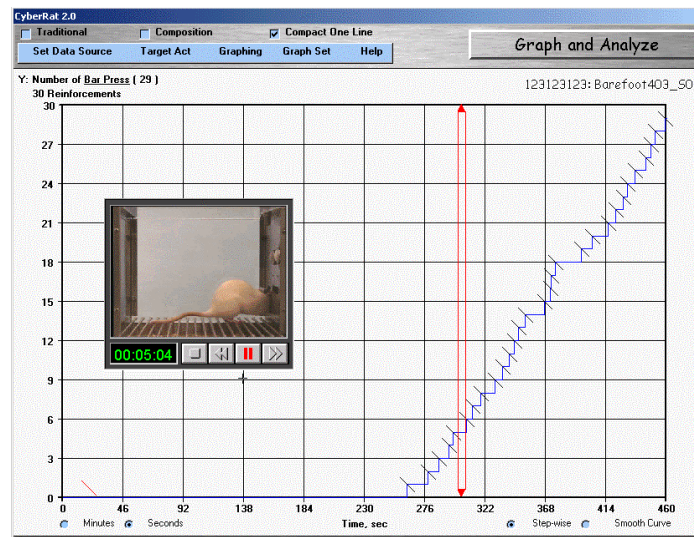


At this point you are ready to graph your results, as automatically suggested by the sudden appearance of a graphing icon on the “Conduct Experiment” screen. Clicking on this icon takes you to the Graphing Results screen (which is also accessible via the Navigation button from anywhere within CyberRat). However the graphic icon pre-selects your current experiment for immediate graphing. If you go to the “Graph and Analyze” screen using the Navigation button it does not select any specific session or animal. In this case you must use the “Set Data Source” button on the “Graph and Analyze” screen to indicate what subject/session you wish to graph.

The graphing screen defaults to a traditional form of cumulative record, with 300 as the default for responses on the Y axis and 60 minutes as the default for time on the X axis. You may rescale merely by clicking on either axis. If response counts exceed 300 it will “reset the pen” and continue plotting. If time exceeds 60 minutes it will be a scrollable chart to see the data past the 60 minutes. As an alternative, you may wish to graph everything to “fit” on a single page that takes into account the number of responses and scales them automatically as well as extending/compressing time to use the entire viewable X axis. To do this, select the “Compact One Line” option, as illustrated below:



In the “Compact One Line” mode you may “Zoom-in” on any segment of your graph by clicking on the beginning of the section you want zoomed, then dragging with mouse down to the end of the section you want zoomed. In either the “Traditional” or this “Compact One Line” mode, you now have another option available for reviewing your data. If you hold the “Shift” key down and click anywhere on your dataline, a video window will appear in the lower-right corner of the graph. Clicking play or pause will allow you to compare real-time behavior of the animal with the actual data graph. A moving vertical “line” window will show you the approximate time period corresponding between the two. The video play window is moveable merely by click-dragging the window where you would like it placed:



As suggested above, use the play/pause button to control playback, and use the stop button as illustrated to close the video playback window:



When you are finished working on your experimental session, you may return to the colony and select an alternative animal, continue another session with the currently selected animal (if with alternative experimental parameters, don't forget to reset them), or merely exit/quit the program using the Navigation button as illustrated:

